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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,570	08/27/2003	James W. Harris	108352	8215

23490 7590 10/02/2006

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EXAMINER

MANOHARAN, VIRGINIA

ART UNIT PAPER NUMBER

1764

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,570

Applicant(s)

HARRIS ET AL.

Examiner

Virginia Manoharan

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-23 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-21 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-21 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a). It is unclear which port is in communication with the upper vapor-liquid contacting area, the first inlet port recited in the preamble, or the third inlet port recited in the improvement clause of claim 1? (Reciting the latter with the inclusion of the term – further—obviates this rejection). See also claim 21.

b). The claims e.g., claim 24 does not positively recite the structure e.g., the claimed “contact condenser”.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Disclosure of Admitted Prior Art (ADAA) as illustrated e.g., by the M. Abdul Mutalib et al., Article in view of anyone of Jensen (4,894,145), Hiramatsu (4,617,092) or Boyd (4,024,027).

The above references are applied for the same combined reasons as set forth at the paragraph bridging pages 6 and 7 of the previous Office Action.

Art Unit: 1764

Claims 22 - 23 are allowable over the prior art of record.

Applicants' arguments filed July 17, 2006 have been fully considered but they are not persuasive.

Applicants' following arguments such as : “..Mutalib, Jensen, Hiramatsu, and Boyd, alone or in combination, do not teach or suggest an apparatus comprising a dividing wall distillation column in which there is a condenser in communication with an upper vapor-liquid contacting area, an inlet port to introduce liquid from the condenser to the upper vapor-liquid contacting area, and an inlet port in communication with the feed section, a temperature measuring device vertically spaced above the outlet port, another temperature measuring device vertically spaced below the outlet port, and an additional inlet port in communication with the upper vapor-liquid contacting area...” are not persuasive of patentability because of the following reasons:

Jensen, for example only, shows in Fig. 1 a TX (50), a temperature transducer in combination with a temperature sensing device (col. 5, lines 44-45) above the side cut (32), and a TX (54) ,(col. 5, lines 52-59), below the sidecut (32) which would read on the above argued “temperature measuring device vertically spaced above the outlet port” and “another temperature measuring device vertically spaced below the outlet port” respectively. See further Jensen for the argued three inlet ports, e.g., port (109) ; port from lines including elements (122, 117) to (44); and inlet port (12) which all are deemed to correspond to the above argued “inlet port to introduce liquid from the condenser to the upper vapor-liquid contacting area” ; “additional inlet port in communication with the upper vapor-liquid contacting area” and “inlet port in

Art Unit: 1764

communication with the feed section” respectively. Furthermore, the argued “contact condenser” is of no patentable moment. The condenser clearly does not form part of the claimed dividing wall distillation column e.g., in claim 1 as it is not positively recited as an element of an apparatus. A definition of the dividing wall apparatus with reference to something that does not belong to the apparatus makes it unclear and as such cannot be used to distinguish the apparatus from the prior art. It is noted that Jensen discloses a condenser (16). Therefore the argued condenser is not a point of novelty. It is not an unobvious subject matter nor is it indicative of criticality in the art. Also, applicants’ further reference to the specification at page 34, line 14 to page 35, line 27 is not patentably significant as applicants cannot import limitations of the specification into a claim where no express statement of the limitation is included in the claim. Moreover, the claims are directed to apparatus which are not patentably distinguished from the applied arts based on the argued “apparatus for controlling the separation of two feed streams” (with all of the cited references dealing with separating only a single feed stream); nor based on the argued “adjusting reflux rate based on temperature”; and further based on apparatus that can control tray temperature. The above argued reflux rate, temperature and feedstreams, for examples, are not relevant to the instant claimed apparatus. Also, by now, it is well-settled that the manner or method in which an apparatus is to be utilized is not germane to the issue of patentability of the apparatus itself. This view finds clear support in *In re Otto*, 136 USPQ 458.

Thus, in the absence of anything which may be “new” or “unexpected result.” a prima facie case of obviousness has been reasonably established by the art and has not been rebutted. Unexpected results must be established by factual evidence. Mere arguments or

Art Unit: 1764

conclusory statements in the specification, applicants' amendments, or the Brief do not suffice. In re Linder, 457 F.2d 506, 508, 173 USPQ 356, 358 (CCPA 1872). In re Wood, 582, F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

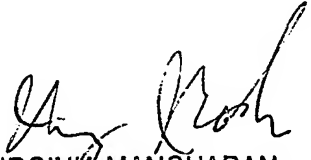
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 1764

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


VIRGINIA MANOHARAN
PRIMARY EXAMINER
ART UNIT 133/764